

WHAT WE CLAIM IS:

1. An imaging system, comprising:
a plurality of imaging units, and
an illumination device, wherein:
5 each of said plurality of imaging units comprises an
imaging lens and an imaging device located on an image
plane of said imaging lens,
said plurality of imaging units are two-
dimensionally arranged in rows and columns, and
10 said illumination device is positioned in such a way
as to direct illumination light in a direction along an
optical axis of each imaging unit, wherein said optical
axis of each imaging unit is defined by an axis that
passes through a common object point at an imaging
15 position and a center of each imaging lens.
2. The imaging system according to claim 1,
wherein said illumination device is located at a position
where a subject is illuminated from a periphery of said
imaging device or said imaging lens.
- 20 3. The imaging system according to claim 1,
wherein said illumination device comprises a common light
source located behind said imaging devices.
4. The imaging system according to claim 1,
wherein said illumination device comprises a plurality of
25 illumination light sources, wherein said plurality of
illumination light sources are each located with respect
to each of said plurality of imaging units.
5. The imaging system according to claim 1,

wherein said illumination device is located at a position where illumination light is directed coaxially with respect to the optical axes of said imaging units.

6. The imaging system according to claim 1,
5 wherein said plurality of imaging lenses are a lens array with integrally formed lenses.

7. The imaging system according to claim 6, wherein said lens array is located at a position adjustable in a normal direction to a plane thereof.

10 8. The imaging system according to claim 6, wherein said lens array is located at a position adjustable in two orthogonal directions in a plane thereof.

9. The imaging system according to claim 1, wherein each of said imaging units is located with a
15 center substantially in alignment with an optical axis thereof.

10. The imaging system according to claim 1, wherein in each of said plurality of imaging units, said imaging lens and said imaging device are located such that
20 in adjoining imaging units, a spacing between said imaging lenses is larger than that between said imaging devices.

11. The imaging system according to claim 1, wherein each of said imaging lenses and each of said imaging devices are arranged in an at least one direction
25 and on a concavely curved surface with respect to said common object point.

12. An identity authentication system, comprising:
an imaging system as recited in claim 1,

a fundus image synthesis block,
a data generation block, and
an identification block, wherein:

in said imaging system, said each imaging unit
5 simultaneously picks up images inclusive of an image of a
pupil of an individual to be authenticated, which is
located at an object point position,

said fundus image synthesis block comprises a step
of cutting the image of the pupil of the individual to be
10 authenticated out of each of the images picked up by said
imaging system, and a step of using cut-out images of the
pupil as pixels to rearrange said pixels corresponding to
an arrangement of said imaging units for synthesis of a
fundus image,

15 said data generation block extracts, from a
synthesized fundus image, data indicative of traits
thereof, and

said identification block compares extracted data
with separately stored data.

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